SKRIPSI

AGUS BUDIONO

PENERAPAN METODE SPEKTROFOTOMETRI UV-Vis SECARA DERIVATIF UNTUK PENETAPAN KADAR FENILEPRIN HCl DAN FENILPROPANOLAMIN HCl DALAM CAMPURAN

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Lembar Pengesahan

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Oleh:

AGUS BUDIONO
NIM : 059011232

Disetujui Oleh Dosen Pembimbing:

Pembimbing Utama

DR. Isnaeni, Apt.,MS

Pembimbing Serta

DR. Soegijanto,Apt.,MS

ABSTRACT

Derivative Spectrophotometric Method for Determination of Phenylephrin HCl and Phenylpropanolamine HCl Mixture

Many drugs are available in a mixture of ingredients. A satisfication method for determination of each ingredient in mixture is needed deal to pharmaceutical quality control. The determination is expected give good results without interference with another ingredient. Phenylephrin HCl and Phenylpropanolamine HCl is a mixture of ingredient; that commonly used as a cold medicine. Determination of both ingredient in mixture has been carried out by first derivative Spectrophotometric method. Based on first order derivative spectra, a selected wavelength for determination Phenylephrin HCl and Phenylpropanolamine HCl were 284 nm and 242 nm respectively. Each ingredient can be determined at selected wavelength without any interference. Four artificial samples were contained of Phenylephrin HCl and Phenylpropanolamine HCl mixture. The composition of the mixture are (1:1),(1:2,5), (1:7,5) and (1:10). The determination result of the mixture showed a good precision and accuracy. The accuracy of Phenylephrin HCl in artificial sample with (1:1), (1:2,5), (1:7,5) and (1:10) composition were 100 %; 101 %; 102 % and 102 % respectively. The accuracy of Phenylpropanolamine HCl in artificial sample with (1:1),(1:2,5), (1:7,5) and (1:10) composition were 100 %; 98,6 %; 97,8 % and 98,0 % respectively. The precision of Phenylephrin HCl in artificial sample with (1:1),(1:2,5), (1:7,5) and (1:10) composition were 0,33 %; 0,58 %; 0,78 % and 1,68 % respectively. The precision of Phenylpropanolamine HCl in artificial sample with (1:1), (1:2,5), (1:7,5) and (1:10) composition were 1,48 %; 2,34 %; 1,59 % and 1,49 % respectively. These method have a good precision for all given composition exclude Phenylpropanolamine HCl at (1;2,5) composition, that give a fair good precision.

Keyword : Derivative Spectrophotometry, Phenylephrin HCl, Phenylpropanolamine HCl